[10191/4584]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

Inventor	:	Holger CESKUTTI et al.
Serial No.	:	10/564,208
Filing Date	:	May 31, 2006
For	:	METHOD AND SYSTEM FOR REMOTE PROGRAMMING OF A PROGRAM-CONTROLLED DEVICE USING A LEGITIMIZATION CODE
Group Art Unit	:	2191
Examiner	:	Qing CHEN
Confirmation No.	:	7533

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Date: April 12, 2011   Reg. No. 36,197

Signature: _____
                    Jong H. Lee

APPELLANTS' APPEAL BRIEF
UNDER 37 C.F.R. § 41.37

SIR:

Applicants filed a Notice of Appeal dated March 1, 2011, appealing from the Final Office Action dated December 6, 2010, in which claims 17-32, 35 and 36 of the above-identified application were finally rejected. This Appeal Brief is being submitted by Applicants in support of their appeal.

I. REAL PARTY IN INTEREST

The real party in interest in the present appeal is Robert Bosch GmbH of Stuttgart, Germany. Robert Bosch GmbH is the assignee of the entire right, title, and interest in the present application.

II. RELATED APPEALS AND INTERFERENCES

No appeal or interference which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in the pending appeal is known to exist to the undersigned attorney or is believed by the undersigned attorney to be known to exist to Applicant.

III. STATUS OF CLAIMS

Claims 17-32, 35 and 36 are currently pending in the present application, stand rejected, and are being appealed. Claims 1-16, 33 and 34 have been canceled. Among the appealed claims, claims 17, 18 and 30 are independent.

IV. STATUS OF AMENDMENTS

No Amendment has been made subsequent to the final Office Action mailed on December 6, 2010.

V. SUMMARY OF CLAIMED SUBJECT MATTER

With respect to independent claim 17, the present invention provides a method for remote programming of a device configured to be program-controlled, including:

remotely transmitting program data from a control station (Fig. 1, element 9) via a long-distance connection to an interface (Fig. 1, element 4) connected to the device; (Substitute Specification, p. 8, l. 26-29);

buffering the program data at the interface (p. 8, l. 29-31);

remotely transmitting a legitimization from the control station to the interface, the legitimization forming a security code associated with the device; (p. 9, l. 5-8);

forwarding the legitimization, unbuffered, to the device upon receiving the legitimization at the interface; (p. 9, l. 8-10);

checking, by the device, the legitimization for validity; and (p. 9, l. 10-15);

if the legitimization is determined to be valid, entering the program data in a memory of the device. (p. 9, l. 16-20).

With respect to independent claim 18, the present invention provides a method for remote programming of a device configured to be program-controlled, including:

remotely transmitting program data from a control station (Fig. 1, element 9) via a long-distance connection to an interface (Fig. 1, element 4) connected to the device; (p. 9, l. 28-32);

buffering the program data at the interface; (p. 9, l. 28-32);

remotely transmitting a legitimization from the control station to the interface; (p. 10, l. 3-4);

buffering the legitimization at the interface by storing the legitimization together with the program data; (p. 10, l. 3-11);

assigning a validity period to the legitimization; (p. 10, l. 11-23);

after the buffering of the legitimization, forwarding the legitimization to the device; (p. 10, l. 24-25);

checking, by the device, the legitimization for validity, wherein the checking includes checking of the validity period of the legitimization; (p. 10, l. 25-30); and

if the legitimization is determined to be valid, entering the program data in a memory of the device (p. 10, l. 31-33).

With respect to independent claim 30, the present invention provides a system for remote programming of a device, including:

an interface (Fig. 1, element 4) configured to receive program data (p. 8, l. 26-29) and a legitimization (p. 9, l. 5-8); and

the device is configured to be remotely programmed and program-controlled (p. 7, l. 12-22), wherein the device includes a processor (Fig. 1, element 12) and a program memory (Fig. 1,

element 8), wherein the device is operatively connected to the interface (p. 7, l. 5-6), and wherein the legitimization forms a security code associated with the device (p. 7, l. 22-24);

wherein the interface is configured to:

buffer the received program data; (p. 8, l. 29-31);

forward the received legitimization to the device without buffering, upon receiving the legitimization; and (p. 9, l. 8-10);

transmit the buffered program data to the device after a positive determination of validity of the legitimization by the device. (p. 9, l. 16-20).

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are presented for review on appeal in this case:

(A)   Whether pending claims 17, 19, 21, 23, 29-32, 35 and 36 are unpatentable under 35 U.S.C. § 103(a) as being rendered obvious by U.S. Patent App. No. 2002/0019877 ("Wrede") in view of U.S. Publication No. 2002/0035429 ("Banas").

(B)   Whether pending claims 18, 20, 22 and 24 are unpatentable under 35 U.S.C. § 103(a) as being rendered obvious by over Wrede in view of Banas and U.S. Publication No. 2002/0129043 ("Nakada").

(C)   Whether pending claim 25 is unpatentable under 35 U.S.C. § 103(a) as being rendered obvious by over Wrede in view of Banas and U.S. Publication No. 2004/0054444 ("Abeska").

(D)   Whether pending claims 26-28 are unpatentable under 35 U.S.C. § 103(a) as being unpatentable over Wrede in view of Banas, Nakada and Abeska.

VII.   ARGUMENTS

A.   Rejection of Claims 17, 19, 21, 23, 29-32, 35 and 36 under 35 U.S.C. § 103(a)

Claims 17, 19, 21, 23, 29-32, 35 and 36 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent App. No. 2002/0019877 ("Wrede") in view of U.S. Publication No. 2002/0035429 ("Banas"). Applicants respectfully submit that the rejection should be reversed for at least the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references, and that, when so modified or combined, the prior art teaches or suggests all of the claim limitations. M.P.E.P. §2143. In addition, as clearly indicated by the Supreme Court, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to [modify] the [prior art] elements" in the manner claimed. See KSR Int'l Co. v. Teleflex, Inc., 82 U.S.P.Q.2d 1385 (2007). In this regard, the Supreme Court further noted that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Id., at 1396. To the extent that the Examiner may be relying on the doctrine of inherent disclosure in support of the obviousness rejection, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics <u>necessarily</u> flow from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Claim 17 recites, in relevant part, "remotely transmitting a legitimization from the control station to the interface, the legitimization forming a security code associated with the device," and "**forwarding the legitimization, unbuffered, to the device upon receiving the legitimization at the interface.**" Claim 30 recites substantially similar features as the above-recited features of claim 17.

In the final Office Action (of 12/06/10), the Examiner appears to suggest that the feature of forwarding the legitimization <u>unbuffered</u> is implicitly described in Wrede. In particular, the Examiner makes the following contentions:

> Examiner's Remarks: Note that upon receiving the identification code for the new program from the central transmitting terminal at the central vehicle computer, **the identification code** for the new program **is** **forwarded to a control unit SG directly** for comparison with an

identification code stored in the control unit SG. **Thus, one of ordinary skill in the art would readily comprehend that the identification code for the new program is forwarded to the control unit SG without buffering.** (Final Office Action, p. 4) (Emphasis added).

The Examiner's position (as best understood by the Applicants) is essentially as follows: Since paragraph [0026] of Wrede describes an embodiment in which the central computer can transmit the codes to the control unit for comparison with the original code contained in the control unit (so that the control unit, rather than the central computer, performs the comparison), it **must be** the case (i.e., inherent) that the transmission of the code is **unbuffered**. Under this interpretation, the identification code is transmitted from the central vehicle computer ZFR to the unit being programmed (SG) **as soon as the identification code is made available to the central computer ZFR** by the communications device KE. That is, the central computer ZFR does not temporarily store the identification code, but merely relays the code to the unit SG.

First, contrary to the Examiner's assertion, paragraph [0026] does not mention that the identification code is **directly transferred** to the control unit; instead, it only requires that the comparison be made **at the control unit**. Second, the Examiner contends that "when data is transferred directly from one device to another device without the aid of any intervening device, one of ordinary skill in the art would readily comprehend that the transferred data is unbuffered." (Final Office Action, p. 22). Applicants respectfully disagree and point out that the transferring device itself can include an internal buffer so that, irrespective of whether there is an intervening device between the transferring and receiving devices, the transferring device can potentially constitute a buffer.

Additionally, the Examiner's implicit "inherent disclosure" argument ignores the fact that **it is _not necessary_ for the code to be transmitted unbuffered**. In this regard, the Examiner has not provided the legally required "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art." Simply because Wrede is silent as to how the identification code is transmitted to the control unit does not mean that the code is necessarily transmitted unbuffered. The Examiner's argument ignores the disclosure contained in paragraphs [0016], [0021] and [0023] of Wrede, which paragraphs indicate that **the central**

vehicle computer buffers program data and also has the ability to document the reprogramming process *using identification codes*. For instance, paragraph [0023] describes a "central vehicle computer ZFR, in which the data is checked, recorded and **buffered**." Thus, in the context of program data, it is clear that the central computer ZFR **performs buffering** prior to transmitting the program data to the unit SG. **There is absolutely nothing to suggest that the identification codes should be treated differently than the program data in Wrede.** Instead, the mere fact that Wrede requires an additional central computer ZFR to forward the identification code to the unit being programmed (SG) suggests that **the central computer ZFR acts as a buffer**.

In sum, there is no reasonable basis for concluding that Wrede either teaches or suggests *forwarding the legitimization, unbuffered, to the device upon receiving the legitimization at the interface*, as recited in claim 17 (and similarly recited in claim 30).

Banas does not refer to the use of identification codes in connection with device programming. Therefore, Banas fails to remedy the above-noted deficiencies of Wrede as applied against claim 17.

For at least the foregoing reasons, the combination of Wrede and Banas fails to render obvious claims 17 and 30, as well as their dependent claims 19, 21, 23, 29 and 31, 32, 35 and 36. Reversal of the obviousness rejection of claims 17, 19, 21, 23, 29-32, 35 and 36 is respectfully requested.

B.   Rejection of Claims 18, 20, 22 and 24 under 35 U.S.C. § 103(a)

Claims 18, 20, 22 and 24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wrede in view of Banas and U.S. Publication No. 2002/0129043 ("Nakada"). Applicants respectfully submit that the rejection should be reversed for at least the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must

show, *inter alia*, that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references, and that, when so modified or combined, the prior art teaches or suggests all of the claim limitations. M.P.E.P. §2143. In addition, as clearly indicated by the Supreme Court, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to [modify] the [prior art] elements" in the manner claimed. See KSR Int'l Co. v. Teleflex, Inc., 82 U.S.P.Q.2d 1385 (2007). In this regard, the Supreme Court further noted that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Id., at 1396. To the extent that the Examiner may be relying on the doctrine of inherent disclosure in support of the obviousness rejection, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Claim 18 recites, in relevant parts, "remotely transmitting program data . . . ; remotely transmitting a legitimization . . . ; **assigning a validity period to the legitimization**; **after the buffering of the legitimization, forwarding the legitimization to the device;** checking, by the device, the legitimization for validity, wherein the checking includes **checking of the validity period of the legitimization**; and if the legitimization is determined to be valid, **entering the program data in a memory** of the device." In support of the rejection, the Examiner relies on Nakada for disclosing the use of a validity period, and the Examiner concludes that "one of ordinary skill in the art would readily comprehend that assigning a validity period to a program and assigning a validity period to a legitimization are functionally equivalent. Both Nakada and Applicant are attempting to test for the validity period of **computer code**." (Final Office Action, p. 24). However, this "functional equivalence" argument completely ignores the fact that the claimed limitations at issue clearly distinguish between the **program data**, which is completely separate from the legitimization and is not subjected to any validity test, and the **legitimization**, which is assigned a validity period and is not part of the program data which may be entered in the memory. As clearly explained in the present specification (e.g., Substitute Specification, p. 4, l. 4-8), the functional significance of this separation, i.e., the assignment of validity period to the legitimization as opposed to the program data, is that the validity period may be selected to negate an unauthorized accessing of the legitimization: "validity period

should be selected to be so short that it will expire in an unauthorized accessing of the legitimization, **even before an unauthorized programming of the device is able to be implemented with the aid of legitimization**." This security functionality provided by the assignment of validity period to the legitimization clearly cannot be achieved by assigning the validity period to the program, since any validity period assigned to the program would have to be long enough for the programming to be implemented with the aid of legitimization. Therefore, the Examiner's "functional equivalence" argument is clearly incorrect.

For at least the foregoing reasons, the combination of Wrede, Banas and Nakada fails to render obvious claims 18, as well as dependent claims 20, 22 and 24. Reversal of the obviousness rejection of claims 18, 20, 22 and 24 is therefore respectfully requested.

C.   Rejection of Claim 25 under 35 U.S.C. § 103(a)

Claim 25 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wrede in view of Banas and U.S. Publication No. 2004/0054444 ("Abeska").

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references, and that, when so modified or combined, the prior art teaches or suggests all of the claim limitations. M.P.E.P. §2143. In addition, as clearly indicated by the Supreme Court, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to [modify] the [prior art] elements" in the manner claimed. See KSR Int'l Co. v. Teleflex, Inc., 82 U.S.P.Q.2d 1385 (2007). In this regard, the Supreme Court further noted that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Id., at 1396. To the extent that the Examiner may be relying on the doctrine of inherent disclosure in support of the obviousness rejection, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Claim 25 ultimately depends on claim 17. As discussed in connection with claim 17, Wrede and Banas fail to teach or suggest *forwarding the legitimization, unbuffered, to the device upon receiving the legitimization at the interface*, as recited in claim 17. In addition, Abeska fails to remedy the deficiencies of Wrede and Banas as applied against claim 17. Therefore, Applicants submit that dependent claim 25 is not rendered obvious by the combination of Wrede, Banas and Abeska. Reversal of the obviousness rejection of claim 25 is therefore respectfully requested.

D.   Rejection of Claims 26-28 under 35 U.S.C. § 103(a)

Claims 26-28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wrede in view of Banas, Nakada and Abeska.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references, and that, when so modified or combined, the prior art teaches or suggests all of the claim limitations. M.P.E.P. §2143. In addition, as clearly indicated by the Supreme Court, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to [modify] the [prior art] elements" in the manner claimed. See KSR Int'l Co. v. Teleflex, Inc., 82 U.S.P.Q.2d 1385 (2007). In this regard, the Supreme Court further noted that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Id., at 1396. To the extent that the Examiner may be relying on the doctrine of inherent disclosure in support of the obviousness rejection, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Claims 26-28 ultimately depend on claim 18. As discussed in connection with claim 18, Wrede, Banas and Nakada fail to teach or suggest "**assigning a validity period to the legitimization**; checking, by the device, the legitimization for validity, wherein the checking

includes **checking of the validity period of the legitimization**; and if the legitimization is determined to be valid, **entering the program data in a memory** of the device." In addition, Abeska fails to remedy the deficiencies of Wrede, Banas and Nakada as applied against claim 18. Accordingly, dependent claims 26-28 are not rendered obvious by the combination of Wrede, Banas, Nakada and Abeska. Reversal of the obviousness rejection of claims 26-28 is therefore respectfully requested.

VIII. CONCLUSION

For the foregoing reasons, it is respectfully submitted that the final rejections of claims 17-32, 35 and 36 should be reversed.

Claims Appendix, Evidence Appendix and Related Proceedings Appendix sections are found in the attached pages.

Respectfully submitted,

KENYON & KENYON LLP

(R. No. 36,/97)

Dated: April 12, 2011

By: *Jong Lee for Gerard Messina*
Gerard A. Messina
Reg. No. 35,952
One Broadway
New York, New York 10004
(212) 425-7200

CLAIMS APPENDIX

The claims involved in this appeal, claims 17-32, 35 and 36, in their current form after entry of all amendments presented during the course of prosecution, are set forth below:

17.   A method for remote programming of a device configured to be program-controlled, comprising:

remotely transmitting program data from a control station via a long-distance connection to an interface connected to the device;

buffering the program data at the interface;

remotely transmitting a legitimization from the control station to the interface, the legitimization forming a security code associated with the device;

forwarding the legitimization, unbuffered, to the device upon receiving the legitimization at the interface;

checking, by the device, the legitimization for validity; and

if the legitimization is determined to be valid, entering the program data in a memory of the device.

18.   A method for remote programming of a device configured to be program-controlled, comprising:

remotely transmitting program data from a control station via a long-distance connection to an interface connected to the device;

buffering the program data at the interface;

remotely transmitting a legitimization from the control station to the interface;

buffering the legitimization at the interface by storing the legitimization together with the program data;

assigning a validity period to the legitimization;

after the buffering of the legitimization, forwarding the legitimization to the device;

checking, by the device, the legitimization for validity, wherein the checking includes checking of the validity period of the legitimization; and

if the legitimization is determined to be valid, entering the program data in a memory of the device.

19.   The method as recited in Claim 17, wherein at least one of the legitimization and the program data is wirelessly transmitted via the long-distance connection.

20.   The method as recited in Claim 18, wherein at least one of the legitimization and the program data is wirelessly transmitted via the long-distance connection.

21.   The method as recited in Claim 19, wherein the method is repeated if a fault occurs in the wireless transmission of at least one of the legitimization and the program data.

22.   The method as recited in Claim 20, wherein the method is repeated if a fault occurs in the wireless transmission of at least one of the legitimization and the program data.

23.   The method as recited in Claim 21, wherein at least one of the program data and the legitimization is forwarded via a wired connection from the interface to the device.

24.   The method as recited in Claim 22, wherein at least one of the program data and the legitimization is forwarded via a wired connection from the interface to the device.

25.   The method as recited in Claim 23, further comprising:

prior to the remote transmission of the program data to the interface, reading data from the memory of the device and transmitting the device memory data to the control station.

26.   The method as recited in Claim 24, further comprising:

prior to the remote transmission of the program data to the interface, reading data from the memory of the device and transmitting the device memory data to the control station.

27.   The method as recited in Claim 26, wherein the device memory data are buffered at the interface prior to being transmitted to the control station.

28.   The method as recited in Claim 26, wherein the control station arranges the program data on the basis of the device memory data.

29.   The method as recited Claim 23, further comprising:

after entering of the program data into the memory of the device, checking whether the remote programming has been successfully completed, and

if the remote programming has been successfully completed, resuming an operation of the device, controlled by the program data.

30.   A system for remote programming of a device, comprising:

an interface configured to receive program data and a legitimization; and

the device is configured to be remotely programmed and program-controlled, wherein the device includes a processor and a program memory, wherein the device is operatively connected to the interface, and wherein the legitimization forms a security code associated with the device;

wherein the interface is configured to:

buffer the received program data;

forward the received legitimization to the device without buffering, upon receiving the legitimization; and

transmit the buffered program data to the device after a positive determination of validity of the legitimization by the device.

31.   The system as recited in Claim 30, wherein the program memory is one of a flash memory and an EEPROM.

32.   The system as recited in Claim 30, wherein the interface is operatively connected to a control station with the aid of a wireless long-distance connection.

35.   The system as recited in Claim 32, wherein the device is a control unit that controls a subsidiary device.

36.   The system as recited in Claim 35, wherein the subsidiary device is one of: a motor vehicle; a component of the motor vehicle; and an engine.

EVIDENCE APPENDIX

In the present application, there has been no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132, or other evidence entered by the Examiner and relied upon by Appellants in the present appeal.

RELATED PROCEEDINGS APPENDIX

No appeal or interference which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in the pending appeal is known to exist.